REMARKS

Claims 1-43 are pending in the application. In the above Office Action the Examiner has rejected claims 1-43 in the manner discussed below.

Double Patenting Rejection

The Examiner has rejected claims 1-27 under the judicially created doctrine of double patenting over claims 1-14 of U.S. Patent No. 6,323,882. Upon receiving an indication that pending claims 1-27 are otherwise allowable over the art of record, Applicant will file a terminal disclaimer in order to overcome the outstanding double patenting rejection.

Claim Rejections Under 35 U.S.C. §103(a)

The Examiner has also rejected claims 1-43 under 35 U.S.C. §103(a) as being unpatentable over Chou et al. (U.S. Patent No. 5,902,352) in view of Sisley (U.S. Patent No. 5,943,652). Applicant respectfully traverses this rejection for the reasons set forth below.

Chou System

Chou describes a method and apparatus for the scheduling of tasks across multiple execution sessions of a computer system. In this regard Chou describes the need for the system of his invention as follows:

> As people rely more and more on computer systems such as this one, the functions and capabilities that they will expect from these systems increases. One such function which would be beneficial to users is the ability to schedule specific actions or tasks to occur periodically, at specific times, or in response to certain system events. For example, these actions may include the backing up of a hard disk drive, the sending of facsimiles during "off-hours" to reduce long distance telephone line charges, or automatically receiving facsimiles for the user when the user is not expecting any and thus has not left the computer system turned on. Thus, it would be beneficial to provide a computer system which is continually available to perform scheduled tasks for the user. [1:33-46]

The above excerpt clearly indicates that Chou is concerned with the scheduling of the performance of specific actions (e.g., backing up a hard disk drive) within a computer system. Applicant also observes that the other portions of Chou cited by the Examiner appear to relate to

the scheduling of the performance of tasks or actions within a computer system. As such, the system of Chou appears to be generally inapposite to a material processing system of the type defined by the present invention. As an example, the first portion of Chou cited by the Examiner reads as follows:

> Task scheduling refers to the scheduling of different tasks or actions which are to be performed by the computer system at certain times. These tasks include executing and terminating applications, and sending messages to processes connected to InstantON servicing agent 140. The times when these tasks are to be performed are identified by specific times or timer periods, the happening of certain events such as a change in system power level, and application status change events such as execution, termination, or crashing.
> [16:56-65]

It is readily apparent that this portion of Chou is exclusively directed to the scheduling of tasks or actions within computer systems, and Applicant respectfully submits that other cited portions of Chou are equally narrowly focused upon the field of computer systems.

Sisley System

The Sisley system relates to resource management, and in particular to techniques for the assignment and scheduling of resource requests among a group of resource providers. Sisley describes various features and advantages of the system as follows:

> As will be described herein, the system and method of the present invention realize better customer satisfaction by improving the timeliness and predictability of resource delivery, increase dispatcher productivity by generating automated assignment and scheduling recommendations, increase resource provider productivity by reducing travel time and generally improving utilization of active time, and enhance flexibility by supporting a variety of organizational policy options to better serve diverse resource domains.
> [3:52-60]

Applicant respectfully submits that Sisley's focus upon, for example, increasing "dispatcher productivity", "reducing travel time", and "improving utilization of active time" bears no relationship to the method of optimizing and controlling a material processing system of the invention. Moreover, Applicant respectfully submits that Sisley's system is unrelated in purpose or objective to the Chou system, which deals with the scheduling of tasks within a computer system. Accordingly, Applicant respectfully submits that there exists no motivation for the

teachings of Sisley to be combined with those of Chou, and that the combination of these references is therefore improper.

Even if such a combination were appropriate, Applicant respectfully submits that Sisley's system does not operate upon or in response to defined sequences of tasks. Rather, Sisley's system is configured to manage the assignment and scheduling of service calls within a field service environment:

> The A/S system 12 searches for assignment and scheduling solutions in response to incremental changes in the dynamic field service environment, and returns the best solutions to system users as recommendations. For purposes of this description, the field service environment is characterized by three basic representational sets having dynamic attributes subject to change over time. The three sets are a technician set defined by a plurality of field service technicians operating in the field service environment, a call set defined by a plurality of customer service calls requiring repair services, and an assignment set defined by a plurality of assignments of calls to technicians. The assignment set includes a schedule set further defined by schedules of the calls assigned to each individual technician. In operation, the A/S system 12 generates assignment and scheduling recommendations, representing modifications of the assignment set, in response to changes in the dynamic attributes of the technician and call sets. [5:46-62]

That is, the Sisley system is concerned with generating recommendations for assignment of customer service calls to technicians and for the scheduling of such calls. Nonetheless, the Examiner has characterized the system described by Sisley as follows:

> Sisley teaches performing a specified function as defined by at least one of the plurality of tasks following the duration of each sequence; and calculating a next run-time of at least one of said sequences (see col. 6, lines 6-67)

Applicant is unable to discern any teaching within Sisley relating to the definition of a sequence of tasks, nor to the performance of a specified function following the duration of such a sequence. In this regard Sisley merely describes the assignment of a plurality of unrelated calls to technicians, and the scheduling of individual ones of the calls. The specific portion of Sisley cited by the Examiner, i.e., col. 6, lines 6-67, is primarily focused upon the manner in which events are processed by the system and trigger assignment and scheduling activity. Again, Applicant respectfully submits that this portion of Sisley does not relate to performing a function

following the duration of a sequence, nor does it suggest calculating a next run-time of a sequence.

Distinguishing Features of the Present Invention

As defined by the pending claims, the present invention pertains in one aspect to a method of optimizing and controlling a material processing system in which a series of sequences of tasks are created and scheduled. Following the duration of each sequence, a specified function defined by one of the plurality of tasks is performed. In another aspect, the present invention relates to a method of creating a sequence of instructions for optimizing and controlling material processing systems. Consistent with this aspect of the invention, first and second tasks are selected and placed in the sequence and a relationship is defined between them. Applicant respectfully submits that neither the Chou nor Sisley reference, either alone or in combination, describe these or other aspects of the present invention.

As discussed above, it is clear the Chou's system is pertinent only to the scheduling of tasks or other actions within computer systems. However, even if Chou's system were somehow useful within the field of material processing, which it is not, it fails to describe a number of the above aspects of the invention. First, as admitted by the Examiner, Chou fails to teach performing a specified function as defined by at least one of a plurality of scheduled tasks of a sequence following the duration of such sequence. In addition, Chou also fails to describe creating a series of sequences by placing tasks in a specified relationship, or defining of a start time, duration, or frequency of at least one of such sequences. The Examiner alleges that Chou describes these features of the invention as presently claimed at col. 16, lines 56-65 (set forth above), and in col. 27, liens 32-59. However, Applicant respectfully submits that Chou does not describe, within the sections cited by the Examiner or otherwise, the definition or scheduling of one or more sequences of tasks. Rather, Chou describes an approach to the scheduling of individual, unrelated tasks, but neither describes nor suggests the definition of a sequence to tasks nor the scheduling of the performance of the sequence. This is apparent from the description provided with reference to FIG. 14 of Chou, which is set forth below:

> FIG. 14 shows a scheduling window 1400 which allows a system user to add and/or modify scheduled tasks. Any of the fields shown in scheduling window 1400 can

> be modified by the system user. Action field 1410 indicates the action to be performed (e.g., run or terminate). Memo field 1420 allows the user to enter remarks or memoranda describing the *scheduled task.* Occurrence field 1430 indicates whether *the task is scheduled* to occur at the present time (e.g., now), on certain days, in response to power events, or in response to application status changes. Scheduling fields 1440 allow the system user to specify which days, times, weeks, etc. the to *schedule the task.*
> [27:48-59, italics added]

It is thus abundantly clear that Chou is concerned with the scheduling of individual tasks, and does not describe a mechanism for either defining a sequence of tasks or of scheduling the resultant sequence.

For the reasons described in the preceding section, Sisley also does not describe or suggest any aspect of the invention. For example, Sisley does not describe or suggest performing a function following the duration of a task sequence, nor does Sisley describe or suggest calculating a next run-time of a sequence.

Accordingly, Applicant respectfully requests reconsideration of the outstanding rejection of claims 1-43 under 35 U.S.C. §103(a). Applicant also respectfully requests consideration of the remarks herein prior to further examination of the above-identified application. The undersigned would of course be available to discuss the present application with the Examiner if, in the opinion of the Examiner, such a discussion could lead to resolution of any outstanding issues.

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